

Air Emissions Trends – Continued Progress Through 2003

The Clean Air Act directs EPA to establish air quality standards to protect public health and the environment. EPA sets national air quality standards for six principal air pollutants (also called the criteria pollutants): nitrogen dioxide (NO₂), ozone (O₃), sulfur dioxide (SO₂), particulate matter (PM), carbon monoxide (CO), and lead (Pb). EPA also sets national emissions standards to control hazardous air pollutant emissions from industrial facilities.

EPA has acted to dramatically improve America's air quality by providing national tools to improve air quality. The associated air quality benefits lead to improved health, longevity and quality of life for all Americans. These tools target transportation and industrial sources of air pollution.

Emissions standards for motor vehicles

- Since the 1970s, EPA has required motor vehicle manufacturers to reduce millions of tons of NO_x from their products, resulting in significant improvements to public health. As a result of the Tier 2 program, all cars, SUVs, pickups, and vans will be 77-95 percent cleaner by 2009. The requirements are phased in, starting in 2004. The program will also result in cleaner-burning gasoline that contains 90 percent less sulfur. Through its clean diesel truck and buses program, EPA reduced the level of sulfur in highway diesel fuel by 97 percent starting in 2006, and will reduce NO_x emissions by over 90%. The Clean Air Nonroad Diesel Rule will cut nonroad diesel vehicle exhaust emissions by more than 90 percent and fuel sulfur levels by 99 percent, beginning in 2007.

Emissions standards for industrial facilities

- In 2004, EPA promulgated the last of the maximum achievable control technology (MACT) standards. These technology based standards regulate hazardous air emissions from large, industrial sources. This significant effort included 96 rules covering 176 categories of sources. When fully implemented, these rules will reduce over 1.7 million tons per year of toxic air emissions.

Controlling emissions from utilities

Acid Rain

- To help reduce acid rain, EPA devised a two-phased strategy to cut NO_x emissions from coal-fired power plants. The first phase, finalized in a rulemaking in 1995, aimed to reduce NO_x emissions by over 400,000 tons per year between 1996 and 1999. The second phase began in 2000, and aimed to reduce NO_x emissions by over 2 million tons per year. The second phase reduction goal has been surpassed, in part due to additional state-initiated NO_x reductions in the Northeast.

Ozone

- The Clean Air Act requires states to reduce ground-level ozone. Since NO_x and ozone

can be transported long distances, the Act also requires "upwind" states to implement programs that will help "downwind" states meet the ozone standards. EPA issued a rule in 1998 that requires 21 states and the District of Columbia to revise their Implementation Plans to further reduce NO_x emissions by taking advantage of newer, cleaner control strategies.

- The rule does not mandate how the reductions are to be achieved, but gives each affected state a NO_x emission target. States have flexibility in determining how to reduce emissions. The goal of this rule is to reduce total emissions of NO_x by 1 million tons in the affected states by 2007. Reductions in most states were required to begin in 2004.

Powerplant Reductions into the Future

- The Clean Air Interstate Rule (CAIR) and the Clean Air Mercury Rule (CAMR) both promulgated in March 2005 will ensure further reductions of powerplant emissions.
- CAIR will dramatically reduce pollution in the eastern United States by reducing and permanently capping emissions of sulfur dioxide and nitrogen oxides – pollutants that lead to the formation of ground-level ozone and fine particle pollution.
- If states choose to meet their emissions reductions requirements by controlling power plant emissions through an interstate cap and trade program, EPA's modeling shows that at full implementation, CAIR will reduce power plant SO₂ emissions in affected states by 73% when compared to 2003 emissions levels.
- CAIR also will achieve significant NO_x reductions across states covered by the rule. In 2015, CAIR will reduce power plant NO_x emissions by 61% from 2003 levels.
- The Clean Air Mercury Rule (CAMR) is the first-ever federal rule to permanently cap and reduce mercury emissions from coal-fired power plants. This rule makes the United States the first country in the world to regulate mercury emissions from coal-fired power plants.
- The Clean Air Mercury Rule will build on EPA's Clean Air Interstate Rule (CAIR) to significantly reduce emissions from coal-fired power plants -- the largest remaining sources of mercury emissions in the country. When fully implemented, these rules will reduce utility emissions of mercury from 48 tons a year to 15 tons, a reduction of nearly 70 percent.